

AMENDMENTS TO THE CLAIMS:

This listing of claims replaces all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A sensor for providing a position-related signal for a piston in relation to a cylinder, the sensor comprising:

a flexible connector having a first end attachable to the piston;

a rotating element attachable to the cylinder and coupled to a second end of the flexible connector;

a translating member cooperating with the rotating element to move along a linear path; ~~and~~

a transducer disposed to sense a linear position of the translating member, wherein the transducer provides the position-related signal; and

an electrical connector affixed in a housing wall of the cylinder, the electrical connector further comprising a body having an internal end located within the cylinder and an external end located outside the cylinder at atmospheric pressure, the body having a plurality of holes extending between the internal and the external ends, a plurality of electrical conductors sealingly affixed within the plurality of holes, and the plurality of electrical conductors having oppositely disposed external connections.

2. (cancelled)

3. (cancelled)

4. (original) The sensor of claim 1 wherein the transducer is one selected from the group comprising a LVDT, a DVRT, a potentiometer, an inductive transducer, a capacitive transducer, and a Hall-effect transducer.

5. (cancelled)

6. (cancelled)
7. (currently amended) A cylinder comprising a piston and a sensor operable to provide a position-related signal for the piston; the sensor including:
 - a flexible connector having a first end attached to the piston;
 - a converting element attached to the cylinder and coupled to a second end of the flexible connector;
 - the converting element having a rotating element operable to rotate in dependence on movement of the piston;
 - a translating member cooperating with the rotating element, wherein the translating member linearly displaces upon rotation of the rotating element; and
 - a transducer disposed to sense the translating member; and
 - an electrical connector affixed in the housing wall of the cylinder, the electrical connector comprising a unitary body of a thermoplastic molded material having an internal end located within the cylinder and an external end located outside the cylinder at atmospheric pressure, the body having a plurality of holes extending between the internal and the external ends, a plurality of electrical conductors sealingly affixed within the plurality of holes, and the plurality of electrical conductors having oppositely disposed external connections.
8. (original) The cylinder of claim 7 wherein the translating member displaces proportionally to displacement of the piston.
9. (original) The sensor of claim 1 further comprising a recoil mechanism coupled to said rotating element for imparting a rotational action on said rotating element.
10. (cancelled)
11. (cancelled)

12. (original) The sensor of claim 1 further comprising an anti-rotational force exerted on said translating member.
13. (original) The sensor of claim 1 further comprising an anti-backlash force exerted along a longitudinal axis of said translating member.
14. (cancelled)
15. (new) The sensor of claim 7 wherein the transducer is one selected from the group comprising a LVDT, a DVRT, a potentiometer, an inductive transducer, a capacitive transducer, and a Hall-effect transducer.
16. (new) The cylinder of claim 7 wherein the sensor further comprises a recoil mechanism coupled to the rotating element for imparting a rotational action on the rotating element.
18. (new) The cylinder of claim 7 wherein the sensor further comprises an anti-rotational force exerted on the translating member.
19. (new) The cylinder of claim 7 wherein the sensor further comprises an anti-backlash force exerted along a longitudinal axis of the translating member.